

Amendments to the Claims

This listing of claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

- 1 1. (Currently Amended) A method for the investigation of patterns in collections of
2 peak-containing data strings or lists of peaks, the method comprising the
3 following steps:
 - 4 (a) displaying the data of the collections of the peak-containing data strings or
5 peak lists in graphical form,
 - 6 (b) calculating significant patterns, correlations or classifications within one or
7 between different collections of the peak-containing data strings or the
8 peak lists by pattern recognition algorithms, thereby including a
9 determination of ~~the~~ peaks significantly participating in the ~~pattern~~
10 ~~generation~~ calculation of the significant patterns, correlations or
11 classifications, and
 - 12 (c) highlighting, in the graphical display of the peak-containing data strings or
13 the peak lists, the peaks significantly participating in the ~~pattern-generation~~
14 calculation of the significant patterns, correlations or classifications.
- 1 2. (Currently Amended) A method according to Claim 1 wherein the peak-containing
2 data strings are displayed, in step (a), by a density plot.
- 1 3. (Original) A method according to Claim 1 wherein features of the graphical
2 display are interactively accessible.
- 1 4. (Currently Amended) A method according to Claim 3 wherein an ensemble of
2 start peaks for the pattern recognition ~~programs can be~~ algorithms is selected
3 from the graphical display.

- 1 5. (Currently Amended) A method according to Claim 3 wherein peaks ~~to be~~
2 compulsory included in the result list of significant peaks by pattern recognition
3 ~~programs can be~~ are selected on the display before the pattern recognition
4 ~~programs~~ algorithms are started and the selected peaks are highlighted in the
5 graphical display together with the peaks which significantly participate in the
6 calculation of significant patterns, correlations or classifications.
- 1 6. (Currently Amended) A method according to Claim 3 wherein, after pattern
2 recognition by the pattern recognition algorithms is completed, ~~by selecting a~~
3 peak on the graphical display[[,]] is selected in order to show more information-is
4 ~~shown~~ with respect to the peak's participation in the ~~pattern generation~~
5 calculation of the significant patterns, correlations or classifications.
- 1 7. (Currently Amended) A method according to Claim 1 wherein the intensity values
2 of the peak-containing data strings are transformed by a filter before the pattern
3 recognition algorithm is applied.